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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,717	02/09/2004	Deepak V. Ayyagari	J-SLA.1367	3858
55428	7590	08/02/2007		
ROBERT VARITZ 4915 SE 33RD PLACE PORTLAND, OR 97202			EXAMINER SAM, PHIRIN	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 08/02/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/775,717

Applicant(s)

AYYAGARI, DEEPAK V.

Examiner

Phirin Sam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9, 11-16 and 20 is/are rejected.
- 7) ☒ Claim(s) 5, 10, 17-19 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

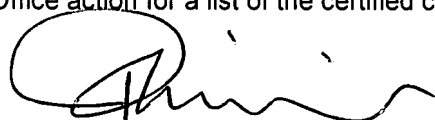
- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 02/09/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

PHIRIN SAM
PRIMARY EXAMINER



DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 7, 8, and 11-16 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2002/0044549 (hereinafter referred as “Johansson”).

Regarding claims 7, 8, and 11, Johansson discloses a method for self-organizing, from a group of nodes, a centralized communication network where the group initially lacks a central coordinator node (CCo) comprising:

- (a) engaging initially in a nominally non-transmission listening-mode period to detect the presence of a beacon (see Fig. 5, paragraph [0014]);
- (b) following the listening-mode period, if no beacon has been detected, allowing an initial transmission-mode period wherein the first node to transmit declares itself to be the CCo (see Fig. 5, paragraph [0015]);
- (c) after such a declaration, organizing the group of nodes into a network reflected by a topology table wherein each node can effectively communicate with every other node (see Fig. 5, paragraphs [0062], [0063]).

Regarding claim 12, Johansson discloses a method for organizing, from a group of nodes, a centralized communication network comprising:

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- (a) identifying nodes in the group which are optimally capable of becoming organized into a network (see Fig. 3, paragraph [0007]);
- (b) then arranging such identified nodes into categories of enabled communication, in one of which categories all nodes can communicate directly with one another, and in another of which categories certain nodes can communicate with certain other nodes only through at least one intermediary, proxy node (see Fig. 3, paragraph [0007], [0008]).

Regarding claim 13, Johansson discloses a method for organizing, from a group of nodes, a communication network based upon the assumption that the organized network will include a central coordinator, said method comprising:

- (a) determining which nodes in the group are optimally capable of becoming organized into a desired network (see Fig. 2, paragraph [0006]);
- (b) enabling the so-determined nodes effectively each to learn (a) the identities of other nodes in the group which have also been so determined, and (b), with respect to all of these so-determined nodes, the respective qualities of communication links that directly exist between pairs of the nodes (see Fig. 3, paragraphs [0007], [0009]);
- (c) on the basis of such learning, **creating a discovered topology table** which provides a guiding tool for the current definition and formation of the desired network (see Fig.

Regarding claims 14-16, Johansson discloses a method for organizing, from a group of nodes, a communication network based upon the assumption that the organized network will include a central coordinator, and in a setting wherein each node in the group has topology knowledge regarding (a) the identities of all other nodes in the group, and (b) the respective

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qualities of communication links that directly exist between different ones of these nodes (see Figs. 2 and 3), said method comprising:

- (a) performing an analysis of such topology knowledge to identify the most appropriate candidate node to perform, in at least the immediate future, the role of a central coordinator node (see Fig. 7 and 9, paragraphs [0061], [0073]);
- (b) following said performing, collectively engaging plural nodes in the group in the selection of that candidate node to be the then-designated central coordinator node (see Figs. 7 and 9, paragraph [0061]).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6, 9, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0044549 (hereafter referred as “Johansson”) in view of US Patent 6,212,587 (hereinafter referred as “Emerson”).

Regarding claim 1, Johansson discloses a method for the topology-discovery and organization of a plural-node communication network comprising:

- (a) selecting a central coordinator node (CCo) from a collection of nodes initially lacking a CCo (see Fig. 7, elements M1 or M2, paragraph [0061]);
- (b) thereafter employing the selected CCo to conduct a procedure for discovering, from the mentioned collection of nodes, all nodes which are optimally capable of being organized into a

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network, wherein all such discovered capable nodes may effectively be organized to communicate with all other nodes (see Fig. 7, paragraph [0069]);

(c) with respect to such discovered, capable nodes, creating a network-global connectivity database in the form of a network-organizing communication topology table that describes enablement of bidirectional communication between all nodes (see Fig. 7, paragraph [0069]).

Regarding claim 2, Johansson does not disclose discovering procedure includes discovering both non-hidden and hidden nodes. However, Emerson discloses non-hidden and hidden nodes (see Figs 1 and 2, elements 310 and 320, col. 4, lines 6-64). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine non-hidden and hidden nodes teaching by Emerson with Johansson. The motivation for doing so would have been to provide to prevent host from attempting to access the hidden nodes read on column 2, lines 66-67. Therefore, it would have been obvious to combine Emerson and Johansson to obtain the invention as specified in the claim 2.

Regarding claims 3, 4, and 6, Johansson discloses a method for organizing a centralized communication network which includes a central coordinator node (CCo) comprising:

(a) under the control of the CCo, discovering all other nodes, including both hidden and non-hidden nodes, which are optimally capable of becoming part of a network in which each node can effectively communicate with every other node (see Fig. 7, paragraph [0061]);

Johansson does not disclose establishing certain non-hidden nodes as proxy intermediaries that enable communication between the CCo and the so-discovered hidden nodes. However, Emerson discloses non-hidden nodes as proxy intermediaries that enable communication between the CCo and the so-discovered hidden nodes (see Figs. 1 and 2,

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elements 280, 310, and 320, col. 4, lines 6-64). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine establishing certain non-hidden nodes as proxy intermediaries that enable communication between the CCo and the so-discovered hidden nodes teaching by Emerson with Johansson. The motivation for doing so would have been to provide to prevent host from attempting to access the hidden nodes read on column 2, lines 66-67. Therefore, it would have been obvious to combine Emerson and Johansson to obtain the invention as specified in the claims 3, 4, and 6.

Regarding claim 9, Johansson does not disclose admitting to the network both non-hidden and hidden nodes, and establishing, from the collection of non- hidden nodes, a proxy node intermediate each hidden node and the CCo. However, Emerson discloses admitting to the network both non-hidden and hidden nodes, and establishing, from the collection of non- hidden nodes, a proxy node intermediate each hidden node and the CCo (see Figs. 1 and 2, col. 60-67, and col. 4, lines 1-64). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine establishing, from the collection of non- hidden nodes, a proxy node intermediate each hidden node and the CCo teaching by Emerson with Johansson. The motivation for doing so would have been to provide to prevent host from attempting to access the hidden nodes read on column 2, lines 66-67. Therefore, it would have been obvious to combine Emerson and Johansson to obtain the invention as specified in the claim 9.

Regarding claim 20, Johansson discloses A network method for self-organizing a group of nodes into a communication network where the nodes are all operatively connected to a shared communication medium, certain nodes may be hidden nodes, and there is an initial assumption that there is no central coordinator node, said method comprising

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(a) engaging in a discovery process to identify the qualities of direct and indirect inter-nodal communication capabilities (see Fig. 7, paragraph [0061]);

Johansson does not disclose a consequence of said engaging, establishing, as desired, at least one proxy node to facilitate bi-directional communication with any hidden nodes. However, Emerson discloses a consequence of said engaging, establishing, as desired, at least one proxy node to facilitate bi-directional communication with any hidden nodes (see Figs. 1 and 2, col. 3, lines 60-67, and col. 4, lines 1-64). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine at least one proxy node to facilitate bi-directional communication with any hidden nodes teaching by Emerson with Johansson. The motivation for doing so would have been to provide to prevent host from attempting to access the hidden nodes read on column 2, lines 66-67. Therefore, it would have been obvious to combine Emerson and Johansson to obtain the invention as specified in the claim 20.

Allowable Subject Matter

5. Claims 5, 10, 17-19, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phirin Sam whose telephone number is (571) 272-3082. The examiner can normally be reached on a compress schedule, from 8:00-5:30, first Wed off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272 - 3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Respectfully submitted,

Date: July 31, 2007

A handwritten signature in black ink, appearing to read 'Phirin Sam', written over a horizontal line.

**PHIRIN SAM
PRIMARY EXAMINER**